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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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MARSHALL, GERSTEIN & BORUN LLP			EXAMINER	
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CHICAGO, IL 60606			ART UNIT	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/648,453

**Applicant(s)**

FOSTER, BRUCE

**Examiner**

TRAMAR HARPER

**Art Unit**

3714

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3, 5-12 and 14-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5-12 and 14-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

Examiner acknowledges the receipt of amendments/arguments filed 2/6/08. The arguments set forth are addressed herein below. Claims 1, 3, 5-12, and 14-22 remain pending, Claims 1, 6, 12, and 20-21 are currently amended, and Claims 2, 4, and 13 are canceled.

### ***Drawings***

The drawings were received on 2/6/08. These drawings are will not be entered. According to the specification the recess tab is 44 and not 58. The drawing should change reference number 42 directed to the notch or recess on the base 12 to 44 to coincide with the specification.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 12, and 20-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In regards to claims 1 and 12, the claim language states puzzle pieces be in direct contact with one of the first or second substrates. However, Examiner contends that the specification shows support for the puzzle pieces being in direct

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contact of the substrate assembly but is unclear as to whether it is in direct contact with the first or second substrate. In regards to claims 20 and 21, the specification is silent to explicitly stating that the substrate assemble comprise only a first, second, and third substrate and that the second substrate comprise only conductive dots. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 3, 5-12, & 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chi (US 2002/0111203).**

**Claims 1, 12, 10, & 19:** Chi discloses a base having a receiving area, wherein a plurality of removable puzzle pieces placed within the receiving/key unit area and cooperating or joined to form an assembled image. The base comprises of a sound generator connected to a power source. The receiving area comprises of a first and second substrate made of a conductive film (same material). The first substrate has a conductive longitudinal pattern and the second substrate has a conductive transverse pattern. The lines/patterns within the substrates of formed of silver gel and carbon power, which is known as a form of conductive ink. Both substrates overlap each other to form a conductive dot matrix and below the actual receiving area where the puzzle pieces are placed (§ 20-22). The substrates are coupled to the control unit (sound

generator). Both substrates are relatively displaceable to thereby permit contact between the conductive substrates upon pressing the selected portion of the image via the removable puzzle pieces such the substrates cooperate to form an electrical circuit thereby activating the sound generator (§ 28-29).

Chi fails to disclose the first and second substrates formed from the same piece of a single paperboard blank material. Chi discloses that the substrates are both made of a conductive film (see above). However, applicant fails to disclose that having the first and second substrates formed from the same piece of a single paperboard blank material or the substrates formed of paperboard blank material in general solves any stated problem or is for any particular purpose. Furthermore, Applicant discloses that is preferable (which is interpreted as not mandatory or required) for substrates to be formed of the same paperboard blank (§ 5). Moreover, it appears that the substrates of Chi, or applicant's invention, would perform the same function of providing an electrical contact means for actuating sound when a puzzle piece is placed in a selected portion of the receiving area, regardless of the type of substrate material. Therefore, it would have been prima facie obvious to modify Chi to obtain the invention as specified in claims 1 & 12 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Chi.

Chi fails to disclose removable pieces such that the lower surface of the puzzle pieces directly contacts one of the first or second substrates. Chi discloses that the puzzle pieces directly contacts the face panel 34 which in turn contacts respective portions of film 31 (Fig. 1). However, applicant fails to disclose that having the

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removable pieces directly contacts one of the first or second substrates solve any stated problem, provides an advantage, or is for any particular purpose. Furthermore, Applicant discloses that is preferable (which is interpreted as not mandatory or required) that the substrates be disposed immediately beneath the puzzle pieces (§ 21). Moreover, it appears that the additional face panel 34 and the substrates of Chi, or applicant's invention, would perform the same function of providing an electrical contact means for actuating sound when a puzzle piece is placed in a selected portion of the receiving area, regardless of whether or not the puzzle pieces directly contacts the first or second substrates. Therefore, it would have been prima facie obvious to modify Chi to obtain the invention as specified in claims 1 & 12 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Chi.

**Claims 3, 5, & 14:** Chi further discloses a third substrate or isolating film that separates the first and second substrates from each other. The third substrate contains a plurality of through hole or apertures corresponding to the contacts or conductive patterns forming the dot matrix on the first and second circuit contained films or substrates (§ 20-23).

**Claims 6 & 15:** Chi does not explicitly teach of a the substrates being die cut, Chi does teach of cutout pieces such as puzzle pieces and electronic board pieces. It is obvious to one skilled in the art that a cutout piece must have had to be cut.

**Claims 7 & 16:** Chi fails to disclose the substrates being separated by fold lines. Chi discloses the first, second, and third substrates as individual parts (Fig. 1). However,

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applicant fails to disclose that having the substrates separated by fold lines solves any stated problem or is for any particular purpose. Furthermore, Applicant discloses that alternatively the substrates may be formed of individual and separate panels (§ 22), which makes either means equivalent. Moreover, it appears that the individual substrates of Chi, or applicant's invention, would perform the same function of providing an electrical contact means for actuating sound when a puzzle piece is placed in the receiving area, regardless of whether the substrates are individual parts or one panel separated by fold lines. Therefore, it would have been prima facie obvious to modify Chi to obtain the invention as specified in claims 7 & 16 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Chi.

**Claims 8 & 17:** Chi does not explicitly teach of applying the conductive ink of the substrates in one printing operation, it is obvious for one skilled in the art to only use one printing operation to perform a printing action. This reduces costs since multiple printing operations cost more production cost and occupy more time to produce the product. Thus, it would be obvious for one skilled in the art to use only one printing operation to print the conductive ink on the substrates.

**Claims 9 & 18:** Chi discloses that the first substrate contains at least a first and second portion (conductive lines), wherein when a particular puzzle piece corresponding to the first and second portion is pressed onto the first substrate area the first substrate come into contact with the second substrate forming a conductive dot matrix. The respective

lines are thus connected through the contact with the second substrate (Figs. 1-6 & above).

**Claim 11:** Chi discloses tabs on the first and second substrates that for placing in a slot of the base of the puzzle device (Fig. 1).

**Claims 20:** Chi discloses a base having a receiving area, wherein a plurality of removable puzzle pieces placed within the receiving/key unit area and cooperating or joined to form an assembled image. The base comprises of a sound generator connected to a power source. The receiving area comprises of a first and second substrate made of a conductive film (same material). The first substrate has a conductive longitudinal pattern and the second substrate has a conductive transverse pattern. The lines/patterns within the substrates are formed of silver gel and carbon power, which is known as a form of conductive ink. Both substrates overlap each other to form a conductive dot matrix and below the actual receiving area where the puzzle pieces are placed (§ 20-22). The substrates are coupled to the control unit (sound generator). Both substrates are relatively displaceable to thereby permit contact between the conductive substrates upon pressing the selected portion of the image via the removable puzzle pieces such the substrates cooperate to form an electrical circuit thereby activating the sound generator (§ 28-29). Furthermore, Chi further discloses a third substrate or isolating film that separates the first and second substrates from each other. The third substrate contains a plurality of through hole or apertures corresponding to the contacts or conductive patterns forming the dot matrix on the first



and second circuit contained films or substrates, the third substrates keeps the contact points of the first and second substrate aligned and in spaced relation (§ 20-23).

Chi fails to disclose the substrates being separated by fold lines. Chi discloses the first, second, and third substrates as individual parts (Fig. 1). However, applicant fails to disclose that having the substrates separated by fold lines solves any stated problem or is for any particular purpose. Furthermore, Applicant discloses that alternatively the substrates may be formed of individual and separate panels (§ 22), which makes either means equivalent. Moreover, it appears that the individual substrates of Chi, or applicant's invention, would perform the same function of providing an electrical contact means for actuating sound when a puzzle piece is placed in the receiving area, regardless of whether the substrates are individual parts or one panel separated by fold lines. Therefore, it would have been prima facie obvious to modify Chi to obtain the invention as specified in claim 12 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Chi.

Furthermore, Chi fails to disclose the substrate assembly comprising only a first, second, and third substrate. However, applicant fails to disclose that having the substrate assembly comprising only a first, second, and third substrate solves any stated problem, provides an advantage, or is for any particular purpose. Moreover, it appears that the additional face panel 34 substrate and the other substrates of Chi, or applicant's invention, would perform the same function of providing an electrical contact means for actuating sound when a puzzle piece is placed in a selected portion of the

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receiving area, regardless of whether or not there is an additional substrate or there is only three. Therefore, it would have been prima facie obvious to modify Chi to obtain the invention as specified in claims 20 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Chi.

**Claim 21:** Chi discloses a base having a receiving area, wherein a plurality of removable puzzle pieces placed within the receiving/key unit area and cooperating or joined to form an assembled image. The base comprises of a sound generator connected to a power source. The receiving area comprises of a first and second substrate made of a conductive film (same material). The first substrate has a conductive longitudinal pattern and the second substrate has a conductive transverse pattern. The lines/patterns within the substrates are formed of silver gel and carbon power, which is known as a form of conductive ink. Both substrates overlap each other to form a conductive dot matrix and below the actual receiving area where the puzzle pieces are placed (§ 20-22). The substrates are coupled to the control unit (sound generator). Both substrates are relatively displaceable to thereby permit contact between the conductive substrates upon pressing the selected portion of the image via the removable puzzle pieces such the substrates cooperate to form an electrical circuit thereby activating the sound generator (§ 28-29). Furthermore, Chi further discloses a third substrate or isolating film that separates the first and second substrates from each other. The third substrate contains a plurality of through hole or apertures corresponding to the contacts or conductive patterns forming the dot matrix on the first

and second circuit contained films or substrates, the third substrates keeps the contact points of the first and second substrate aligned and in spaced relation (§ 20-23).

Chi fails to disclose the second substrate having only a plurality of conductive ink dots. Chi discloses that the first substrate has a conductive longitudinal pattern and the second substrate has a conductive transverse pattern. The lines/patterns within the substrates are formed of silver gel and carbon power, which is known as a form of conductive ink. Both substrates overlap each other to form a conductive dot matrix and below the actual receiving area where the puzzle pieces are placed (see above). However, applicant fails to disclose that the second substrate having only a plurality of conductive ink dots solves any stated problem or is for any particular purpose. Moreover, it appears that the substrates of Chi, or applicant's invention, would perform the same function of providing an electrical contact means for actuating sound when a puzzle piece is placed in a selected portion of the receiving area e.g. when a puzzle piece is placed on the first substrate, first substrate contacts the second substrate forming a closed circuit and actuating sound. The pattern whether it be conductive lines, conductive dots, or a dot matrix does not change the overall effect. Therefore, it would have been prima facie obvious to modify Chi to obtain the invention as specified in claims 20 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Chi.

Furthermore, Chi fails to disclose all the substrates formed from the same piece of a single paperboard blank material and having the same thickness. Chi discloses that the substrates are both made of a film, which implies the same type of film and

thickness (see above). However, applicant fails to disclose that having all the substrates formed from the same piece of a single paperboard blank material (which encompasses same thickness) or the substrates formed of paperboard blank material in general solves any stated problem or is for any particular purpose. Furthermore, Applicant discloses that is preferable (which is interpreted as not mandatory or required) for substrates to be formed of the same paperboard blank (§ 5). Moreover, it appears that the substrates of Chi, or applicant's invention, would perform the same function of providing an electrical contact means for actuating sound when a puzzle piece is placed in a selected portion of the receiving area, regardless of the type of substrate material. Therefore, it would have been prima facie obvious to modify Chi to obtain the invention as specified in claims 20 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Chi.

**Claim 22:** Chi discloses the above with respect to claim 21, but excludes the substrates being separated by fold lines. Chi discloses the first, second, and third substrates as individual parts (Fig. 1). However, applicant fails to disclose that having the substrates separated by fold lines solves any stated problem or is for any particular purpose. Furthermore, Applicant discloses that alternatively the substrates may be formed of individual and separate panels (§ 22), which makes either means equivalent. Moreover, it appears that the individual substrates of Chi, or applicant's invention, would perform the same function of providing an electrical contact means for actuating sound when a puzzle piece is placed in the receiving area, regardless of whether the substrates are individual parts or one panel separated by fold lines. Therefore, it would

have been prima facie obvious to modify Chi to obtain the invention as specified in claim 12 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Chi.

***Response to Arguments***

Applicant's arguments with respect to claims 1, 3, 5-12, and 14-22 have been considered but are moot in view of the new ground(s) of rejection. Applicant argues that a modification to Chi such that the puzzle pieces directly contact the circuit bearing substrates and a substrate subassembly with only a first, second, and third substrate would destroy what Chi's invention is primarily drawn to and that Chi's invention is primarily drawn to providing a puzzle with an improved key structure. The examiner agrees that Chi's invention is geared to, but not limited to an improved key structure. Furthermore, Chi's invention refers to the entire substrate assembly as a key unit and not simply the face panel with keys 341. Furthermore, Chi's is not limited to the purpose of providing an improved key structure, but also to providing a user with a puzzle sound generating device wherein when puzzle pieces are placed on the puzzle device respective sounds are generated. An artisan skilled in the art could arguably remove the face panel 34 of the substrate assembly of Chi and the device would still achieve the same function. For example, if a person were to place a puzzle piece on the puzzle device the pressure from the puzzle piece would cause the conductive pattern of first substrate to contact the conductive pattern of the second and as a result actuate sounds. The face panel simply adds additional pressure to the conductive substrates, but is not necessarily required for the Chi's puzzle sound generating device

to function. Furthermore, Applicant discloses that it is preferable (which is interpreted as not mandatory or required) that the substrates be disposed immediately beneath the puzzle pieces (§ 21) e.g. meaning there could be additional layers there between. Therefore, the design/aesthetic rationale is proper because it would be considered a mere design consideration to modify Chi's invention with the above limitations and furthermore, would not destroy the prior art reference of Chi.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Schmitt (FR 2629731 A) and Horchler et al (US 2003/0162160) disclose similarly structured puzzle sound generating devices.**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRAMAR HARPER whose telephone number is (571)272-6177. The examiner can normally be reached on 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TH

/Ronald Laneau/  
Supervisory Patent Examiner, Art Unit 3714

5/22/08

